

REMARKS

Applicants respectfully request reconsideration of the subject application in view of the amendments and remarks set forth herein. Applicants note with appreciation that the Examiner has indicated that claim 4 would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims. Reconsideration of the application is respectfully requested.

1. Status of the Claims

Claims 1-3 have been rejected. Claim 4 has been objected to as being dependent upon a rejected base claim, and the Examiner has indicated that claim 4 would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims. Claim 1 is amended herein, and claims 5-13 have been withdrawn with a request for rejoinder. No new matter is added by these amendments. After entry of the foregoing amendments, claims 1-4 are pending in this application.

2. Claim Amendments

Applicants respectfully submit that no new matter is introduced by way of the foregoing claim amendments. Independent claim 1 has been amended to more clearly recite the subject matter associated with the present disclosure. Support for the amendments to independent claim 1 can be found in the specification, as originally filed, particularly with reference to paragraphs [0016] to [0025]; and Figures 1-4 and the associated text.

As amended, claims 1-4 are pending in the present application. Applicants respectfully submit that no new matter is introduced by way of applicants' proposed claim amendments, and prompt entry thereof is respectfully requested.

3. Objection to the Drawings

The Examiner has indicated that the drawings are objected to because the reference lines for sleeves 5 in Figure 1 are pointing at cigarette portions 2 instead of the sleeves of the counter cutting device 4.

As such, applicants have respectfully submitted replacement Figure 1, which shows the reference lines 5 pointing at the sleeves of the counter cutting device 4.

Applicants respectfully submit that replacement Figure 1 be entered as requested by the Examiner and that the objections to the drawings be withdrawn.

4. Claim Objections

Claim 1 is objected to because the claim recited that the cutting head rotates about a first axis 20, and that the first axis extends through the counter cutting device.

Applicants have amended claim 1 to remove the limitation that the first axis extends through the counter cutting device. As such, applicants respectfully submit the objections to claim 1 be withdrawn.

5. Section 112 Rejections

The outstanding Office Action sets forth rejections under 35 USC §112 as follows:

Claims 1-4 are rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement.

As noted above, applicants have amended independent claim 1 to more clearly recite that applicants' unit includes "motorized actuating means (27, 31, 32) that are separated and structurally independent from the motorized locking means (24)."

In view of the foregoing listing of claims, applicants respectfully submit that pending claims 1-4 comply with 35 USC §112. Reconsideration and withdrawal of the §112 rejections is respectfully requested.

6. Art-Based Rejections

The outstanding Office Action sets forth rejections under 35 USC §103(a), as follows:

Claims 1 and 2 are rejected under 35 USC §103(a) as being unpatentable over Seragnoli (USPN 4,398,438) [hereinafter "Seragnoli"] in view of Terpstra et al. (USPN 4,882,962) [hereinafter "Terpstra"] and Jourdan (USPN 6,601,494) [hereinafter "Jourdan"], and further in view of Pollock et al. (USPN 7,191,690) [hereinafter "Pollock"]; and claim 3 is rejected under 35 USC §103(a) as being unpatentable over the modified device of Seragnoli in view of Miller et al. (USPN 4,220,077) [hereinafter "Miller"].

Applicants respectfully traverse the rejections and submit that the above claims are patentable over Seragnoli, Terpstra, Jourdan, Pollock and/or Miller, whether taken alone or in combination, or in combination with the other art of record. Reconsideration of the foregoing Section 103 rejections in view of the claim amendments and remarks set forth herein is respectfully requested.

With respect to the rejection of independent claim 1 based upon the proposed combination of Seragnoli in view of Terpstra/Jourdan/Pollock and by way of background, applicants respectfully submit that to qualify as an effective reference in a Section 103 obviousness analysis, prior art must be analogous, i.e., categorically related to the claimed invention. *In re Bigio*, 381 F.3d 1320, 72 USPQ 2d 1209 (Fed. Cir. 2004). A reference is *analogous* if it: (a) is in the inventor's specific field of endeavor, or (b) is reasonably pertinent to the problem the inventor is working to solve. *In re GPAC, Inc.* 57 F.3d 1573, 35 USPQ 2d 1116 (Fed. Cir. 1995); see also *Cable Elec. Prod. Inc. v. Genmark, Inc.* 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). If the art used by the Examiner has a purpose which is different from that of the invention, it is not analogous art as an inventor would be less inclined to consider it relevant. *In re Clay*, 966 F.2d 656, 23 USPQ 2d 1058 (Fed. Cir. 1992).

Against this backdrop, it is noted that:

- Terpstra and Jourdan are in the field of carpenter band saws which are used directly by an operator to cut pieces of wood and, as such, is an industry that is substantially entirely distinct from the field of a cutting unit for cutting continuous cigarette rods in an automatic machine for making cigarettes - i.e., they have different dimensions, they have different structures, they have different cutting means, they work in completely different manners (one is fully automatic, the other is directly controlled by an operator), they cut completely different pieces (a cigarette strand is quite different from a piece of wood); and
- the problems the inventors herein are working to solve is to find a way to provide a cutting unit designed to eliminate the drawbacks of conventional cutting units; carpenter band saw assemblies simply are not reasonably pertinent to this problem

- i.e., a skilled man faced with a problem with a cutting unit for cutting continuous cigarette rods would never look at how a carpenter's band saw is made.

Accordingly, applicants respectfully traverse the 103(a) rejections based on the improper combination of the cited art with Terpstra and Jourdan. In short, Terpstra and Jourdan is not analogous art, and is not citable. For at least these reasons, the §103 rejections of independent claim 1 based upon the improper combination of the cited art with Terpstra and Jourdan should be withdrawn. In addition, applicants respectfully submit that dependent claims 2-3, which depend directly or indirectly from independent claim 1, are allowable at least by virtue of their respective dependencies from claim 1.

Turning again to the §103 rejections of independent claim 1 based upon Seragnoli/Pollock and the improperly cited Terpstra and Jourdan references, applicants further submit that independent claim 1, as amended, patentably distinguishes over Seragnoli, Terpstra, Jourdan and/or Pollock because applicants' claimed cutting unit for cutting continuous cigarette rods fed in a given traveling direction (6) includes *inter alia*, "motorized locking means (24) for angularly locking the cutting head (12) in position on said supporting body (9); said motorized locking means (24) including automatic release means (48) provided with a motorized actuator (53) for releasing the cutting head (12) with respect to the supporting body (9);" and "motorized actuating means (27, 31, 32) that are separated and **structurally independent** from the motorized locking means (24) and interposed between the supporting body (9) and the cutting head (12) to rotate the cutting head (12) about said first axis (20) to vary said angle."

In order to establish obviousness, all elements of the claims must be disclosed, taught or suggested by the prior art. More particularly and as the Examiner is aware, the factual inquiries for establishing a prima facie case of obviousness under 35 U.S.C. §103 are set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). These factors include (1) determining the scope and content of the prior art, (2) ascertaining the differences between the prior art and the claims at issue, (3) resolving the level of ordinary skill in the pertinent art, and (4) considering objective evidence present in the application indicating obviousness or nonobviousness. Applicants respectfully submit that a prima facie case of obviousness may not be established for the

currently pending claims, as amended, because the claims -- when viewed as a whole -- include elements and limitations not disclosed or made obvious by the prior art.

As noted above, applicants respectfully traverse the §103 rejections based upon Seragnoli, Terpstra, Jourdan and/or Pollock. Applicants respectfully submit that independent claim 1, as amended, patentably distinguishes over Seragnoli, Terpstra, Jourdan and/or Pollock because, *inter alia*, applicants' claimed cutting unit for cutting continuous cigarette rods fed in a given traveling direction (6) includes:

- “motorized locking means (24) for angularly locking the cutting head (12) in position on said supporting body (9); said motorized locking means (24) including automatic release means (48) provided with a motorized actuator (53) for releasing the cutting head (12) with respect to the supporting body (9);” and
- “motorized actuating means (27, 31, 32) that are separated and structurally independent from the motorized locking means (24) and interposed between the supporting body (9) and the cutting head (12) to rotate the cutting head (12) about said first axis (20) to vary said angle.”

Applicants note that Seragnoli, Terpstra, Jourdan and/or Pollock fail to teach or suggest a cutting unit that at least includes these noted features, structures and/or functionalities.

In regards to the teachings of Seragnoli, this reference teaches that to adjust the angle, the cutting head is mounted to rotate, with respect to a support, about an adjustment axis through the counter-cutting device, perpendicular to the axis of rotation of the cutting drum, and crosswise to the traveling direction of the continuous rod, and can be locked releasably in any desired angular position about the adjustment axis. Applicants agree with the Examiner that Seragnoli fails to teach or suggest a cutting unit having a motorized locking means including automatic release means provided with an actuator for releasing the cutting head with respect to the supporting body, a motorized actuating means separated from and independent from the motorized locking means and interposed between the supporting body and the cutting head to rotate the cutting head about the first axis, and a sensor means for determining the angle. The Examiner then looks to Terpstra, Jourdan and/or Pollock for these teachings.

However, by modifying the cutting unit disclosed in Seragnoli, for example, in view of the teachings of Terpstra, Jourdan and/or Pollock, one skilled in the art would obtain a cutting unit as disclosed in Seragnoli and further including motorized actuating means structurally connected to the guide device 21.

In other words, the claimed subject matter recited in applicants' independent claim 1 is not just to put a motor for motorizing a movement previously done by hand, but to advantageously combine a motorized actuating device which rotates the cutting head with an automatically releasable locking device which is different and structurally independent from the actuating device and locks the cutting head. None of the cited prior art documents alone or in combination, show or suggest the contemporaneous presence of motorized actuating means and with an automatically releasable locking means different and structurally independent from the motorized actuating means.

With respect to the teachings of the Terpstra, the actuating means are hand operated and also the locking knob 27 is hand operated. See, e.g., Terpstra at col. 4, lines 31-37: "The angularly adjustable band saw 1 further includes a hand wheel 25 for angularly adjusting/moving the movable frame 23, as will become apparent, and a locking knob 27 which must first be released in order to allow the hand wheel 25 to incline or tilt the movable frame 23, as desired." (emphasis added). In other words, the band saw does not have any kind of actuator (e.g., electric motor) and all the operations (e.g., releasing the locking knob 27, rotating the hand wheel 25 and engaging the locking knob 27) are performed manually by the operator of the band saw. Thus, owing to the above, Terpstra fails to disclose, teach or even suggest a motorized locking means provided with a motorized actuator, as recited in applicants' independent claim 1, as amended. Moreover and as noted above, even if one combines the teachings of Terpstra with the teachings of Seragnoli and/or Jourdan, one skilled in the art would only obtain a cutting unit as disclosed in Seragnoli and further including a motor mechanically connected to the guide device 21.

In regards to the teachings of Jourdan and unlike applicants' cutting unit, applicants note that Jourdan teaches a distinctly different assembly. More particularly and unlike applicants' presently claimed cutting unit, the structure of Jourdan's actuating means 32 is used by the locking means 30.

See, e.g., Jourdan at col. 3, lines 8-13 and Figure 3: "The actuator 32 is mounted to . . . plate 30 for the actuator 32. A clevis 38 in combination with a pin 39 connect one end of the actuator 32 to the tilt arm 24. The upper portion of the tilt arm 24 is pivotably connected to the plate 30 by a shaft 44 (supported by bearings not shown) and a nut 46;" and

Jourdan at col. 3, lines 15-17: "the brake 48 is used to hold the frame 14 in a fixed position by clamping the plate 30 (which is structurally mounted to the actuator 32), once a final position for the frame has been achieved by operation of the actuator 32." (emphasis added).

In other words, Jourdan only discloses utilizing locking means 30, 48 that use the structure of the actuating means 32 to perform their desired function. In short and unlike applicants' advantageous cutting unit, the structure of Jourdan's actuating means 32 is used by the locking means 30. Thus, nowhere does Jourdan teach, suggest or disclose a cutting unit having "motorized actuating means (27, 31, 32) that are separated and **structurally independent** from the motorized locking means (24) and interposed between the supporting body (9) and the cutting head (12) to rotate the cutting head (12) about said first axis (20) to vary said angle."

In the cutting unit disclosed in Pollock, the actuator 12 has the function of an actuating device and also has the function of a locking device, i.e., it is also used to block rotation of the subframe 9. However, even if the rotation of the actuator 12 is blocked, the subframe 9 still does small movements because of the plays of the transmission mechanically connecting the actuator 12 to the subframe 9. These movements are typically very small and thus are generally acceptable in most of the cutting operations, but not in the cutting of continuous cigarette rods in a cigarette maker machine. Thus, in the cutting unit recited in applicants' independent claim 1, the action of the locking device, which is separate and independent from (unlike Pollock) the actuating device, locks the cutting head independently from the actuating device and thus guarantees that in use the cutting head and the cutting drum cannot do any rotation, even very

small rotations. In this way, the blades follow precisely the ideal path and thus the cut is perfectly crosswise to the axis of the continuous rod at all times.

Applicants respectfully submit that one skilled in the art would not find any suggestion in the cited prior art to modify the cutting unit disclosed in Pollock to obtain the cutting unit recited in applicants' independent claim 1 (i.e., of combining a motorized actuating device which rotates the cutting head with a releasable locking device which is **separate and structurally independent from** the actuating device and locks the cutting head. Such combination is not disclosed or even suggested in the cited art.

Thus, one skilled in the art would find nothing in either Seragnoli, Terpstra, Jourdan and/or Pollock alone or in combination that would suggest or any reason for making the cutting unit of applicants' claim 1, as amended. Moreover, there is no motivation taught in either reference to combine the references. Even if one combines the references as suggested by the Examiner, one skilled in the art would find nothing in the combination that would disclose, teach or suggest the claimed cutting unit, as amended.

In order to reach the applicants' claimed subject matter of independent claim 1, one would have to completely disregard the teachings given in the cited art. As noted, the cited art does not disclose, teach or suggest the contemporaneous presence of actuating means and with an automatically releasable locking means different and structurally independent from the actuating means. There would be no reason to disregard these teachings without using applicants' own disclosure as a template, and no such suggestion is found in the references in any event. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP §2143. There is no discussion, suggestion and/or disclosure at all in the cited art, alone or in combination, of a cutting unit having, *inter alia*, "motorized locking means (24) for angularly locking the cutting head (12) in position on said supporting body (9); said motorized locking means (24) including automatic release means (48) provided with a motorized actuator (53) for releasing the cutting head (12) with respect to the supporting body (9);" and "motorized actuating means (27, 31, 32) that are separated and structurally independent from the motorized locking means (24) and interposed between the supporting body (9) and the cutting head (12) to rotate the cutting head (12) about said first axis

(20) to vary said angle;" as recited in applicants' independent claim 1, as amended. Accordingly, independent claim 1 is patentable over the cited art.

For at least the foregoing reasons, applicants respectfully submit that independent claim 1, as amended, patentably distinguishes over Seragnoli, Terpstra, Jourdan and/or Pollock, whether taken alone or in combination with each other or the other art of record. In addition, applicants respectfully submit that dependent claims 2-3, which depend directly or indirectly from independent claim 1, patentably distinguish over Seragnoli, Terpstra, Jourdan, Pollock and/or Miller, whether taken alone or in combination with each other or the other art of record, for at least the reasons noted with respect to independent claim 1.

Moreover, applicants respectfully request that the Examiner reconsider and rejoin previously withdrawn claims 5-13 as depending directly or indirectly from allowable independent claim 1. See, MPEP 821.04(a):

Where restriction was required between independent or distinct products, or between independent or distinct processes, and all claims directed to an elected invention are allowable, any restriction requirement between the elected invention and any nonelected invention that depends from or otherwise requires all the limitations of an allowable claim should be withdrawn. For example, a requirement for restriction should be withdrawn when a generic claim, linking claim, or subcombination claim is allowable and any previously withdrawn claim depends from or otherwise requires all the limitations thereof.

Based on the dictates of MPEP 821.04(a), applicants respectfully submit that rejoinder is proper. Upon rejoinder, applicants respectfully submit that such claims are allowable for at least the reasons noted with respect to the underlying independent claim 1.

CONCLUSION

Accordingly, for at least the stated reasons, claims 1-13 are believed to be neither taught nor suggested by Seragnoli, Terpstra, Jourdan, Pollock and/or Miller and, therefore, are neither anticipated by, nor rendered obvious in view of, Seragnoli, Terpstra, Jourdan, Pollock and/or Miller, whether taken alone or in combination with one another, or in combination with the other

art of record. Reconsideration and prompt allowance of all pending claims is respectfully requested. If the examiner believes that a telephone conversation may be useful in advancing prosecution of the application, the examiner is invited to contact applicants' undersigned counsel.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'A. B.', with a long horizontal flourish extending to the right.

Aaron P. Bumgarner
Reg. No. 53,860
Attorney for Applicants

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McCarter & English, LLP
One Canterbury Green
201 Broad Street
Stamford, CT 06901
Telephone: 203-399-5946
Facsimile: 203-399-5846
E-mail: abumgarner@mccarter.com